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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,050	03/22/2004	James E. Kipp	IFT-6019	1570

7590 07/13/2006

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EXAMINER

KUGEL, TIMOTHY J

ART UNIT PAPER NUMBER

1712

DATE MAILED: 07/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/806,050

Applicant(s)

KIPP ET AL.

Examiner

Timothy J. Kugel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 30 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-21 is/are rejected.
- 7) ☒ Claim(s) 3 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-7 and 9-21 are pending as amended on 30 May 2006.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Claim Objections

4. Claims 3 and 16 are objected to because of the following informalities:

In claim 3 the word 'and' should be removed between the steps of "moving a suspension of solid particles in a first fluid stream" and "moving a second fluid in a second fluid stream".

In claim 16 the word 'comprising' should appear between the phrase "the method of claim 2" and the word 'contacting'.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. Claims 1-6 stand and new claims 9-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 2 and 5 recite the limitation "mixing of at least some of the particles in the first and second streams." It is unclear if this limitation means that the particles suspended in the first fluid stream are mixed into the second fluid stream or if particles from a second source—for which there would be insufficient antecedent basis—are mixed into the first and second fluid streams. For the purpose of examination, the claims were construed to recite, "...mixing of at least some of the particles from the first fluid stream into the second fluid stream."

Further, claim 1 recites the limitation "redirecting the fluid". There is insufficient antecedent basis for this limitation in the claim and it is unclear which fluid is being redirected.

Claim 3 recites the limitation, "mixing of at least some of the particles in the first stream." It is unclear what this limitation means as the particles are already described as being suspended in the first fluid. For the purpose of examination, claim 3 was construed to recite, "...mixing of at least some of the particles from the first fluid stream into the second fluid stream."

Claim Rejections - 35 USC § 102

6. Claims 1-4 stand and new claims 9, 10 and 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 6,221,332 (Thumm).

Thumm teaches a method of dispersions, encapsulations, and emulsions (Column 16 Lines 58-64) comprising moving two or more fluid streams at high velocity and pressure (Column 3 Lines 22-29) each potentially containing solid particles (Column 16 Lines 65-66) such that they enter and meet within a mixer/reactor chamber

(Column 3 Lines 53-56 and Figures 2A-2C). Further, Thumm shows that the fluid streams would impact on the flat and/or semi-spherical surfaces and be re-directed in the substantially opposite direction as they enter the chamber (Figures 2A-2C).

7. Claims 5 and 7 stand and claims 1-4, 9-11 and 15-21 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 5,314,506 (Midler).

Midler teaches a method of producing a particle suspension comprising impinging jets of a solution of an organic compound in an organic solvent and an anti-solvent—including water—such that a high purity stable dispersion results (Column 2 Lines 16-19, Column 4 Line 55 – Column 5 Line 19 and Figures 2 and 3). Midler also teaches that the fluids of the process can contain a surfactant (Column 5 Lines 32-45) and that the fluids can be cooled with an ice bath (Example 2 Column 8 Line 55 – Column 9 Line 16). Further, Midler shows that the fluid streams would impact on the flat and/or semi-spherical surfaces and be re-directed in the substantially opposite direction as they enter the chamber (Figures 2 and 3).

Claim Rejections - 35 USC § 103

8. Applicant's amendment, filed 30 May 2006, with respect to the fluid contacting an impacting surface has been fully considered and overcomes the prior art.

The rejection of claims 5-7 under 35 USC 103(a) as being unpatentable over Emulsifying Cell Operating Manual, Best Emulsifying Equipment International, Midgdal Haemek, Isreal (BEEI) in view of Midler has been withdrawn.

9. Claim 5-7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Midler in view of US Patent 3,685,261 (McIlvaine).

Midler teaches a method of producing a particle suspension comprising impinging jets of a solution of an organic compound in an organic solvent and an anti-solvent—including water—such that a high purity stable dispersion results as detailed above.

Midler does not disclose expressly the use of the Venturi effect to combine the two fluid streams.

McIlvaine discloses a method and apparatus for dispersing two fluids including a Venturi (Column 1 Line 56 – Column 2 Line 15 and Figures 1-6).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the Venturi of the apparatus of McIlvaine in the method of Midler. The motivation to do so would have been to thoroughly mix and disperse the two fluids (McIlvaine Column 2 Lines 13-15).

Response to Arguments

10. Applicant's arguments filed 30 May 2006 have been fully considered but they are not persuasive.

Applicant argues that neither Thumm nor Midler teach the fluid(s) contacting an impacting surface; however Figures 2A-2C of Thumm and Figures 2 and 3 of Midler show that the fluid streams are directed at impacting surfaces.

Conclusion

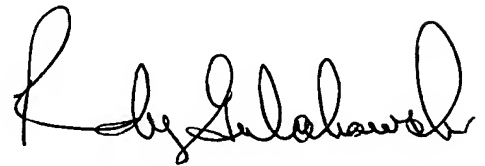
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J. Kugel whose telephone number is (571) 272-1460. The examiner can normally be reached 6:00 AM – 4:30 PM Monday - Thursday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TJK
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A handwritten signature in black ink, appearing to read 'Randy Gulakowski', with a stylized, cursive script.

RANDY GULAKOWSKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700